

at least one final control element, said final control element selectively preventing and allowing a plug to drop from the apparatus, whereupon actuation of said primary control element selectively permits actuation of said final control element to drop a plug;

said primary control element further comprising:

a [driver] motor creating a rotational output; and

a transmission receiving said rotational output from said motor and transmitting [operably engaged] to said [final] primary control element a rotational movement to in turn selectively move said final control element so that said plug can be retained or released.

✓ In claim 2, line 4, remove "driver" and insert —motor— therefor.

✓ Please cancel claim 3 in favor of claim 28.

✓ In claim 4, line 1, remove "3" and insert —28— therefor. Also in claim 4, line 3, remove "motor" and insert —driver— therefor.

✓ Please cancel claim 5 in favor of claim 29.

✓ In claim 6, line 1, remove "5" and insert —29— therefor. Also in claim 6, line 5, after "predetermined amount" insert —to a second position—.

12.(amended) A plug-dropping apparatus for displacement of a material downhole during [the] well drilling and completion operations by personnel working on a rig, comprising:

at least one housing;  
at least one plug selectively supportable within said housing;  
at least one plug stop assembly on said housing selectively operable to hold and release said plug;  
at least one signal transmitter operable adjacent the rig and remotely from said housing;  
at least one signal receiver on said housing for receiving over the air at least one signal from said transmitter;  
at least one control system positioned at least in part in said housing, said control system receiving an output from said signal receiver and in response thereto actuating said plug stop to release said plug;  
said control system further comprising:  
a [driver] motor creating a rotational output; and  
a transmission receiving said rotational output from said motor and transmitting [operably engaged] to said [final] primary control element a rotational movement to in turn selectively move said final control element so that said plug can be retained or released.

✓ In claim 13, line 3, remove "body" and insert —housing— therefor. Also in claim 13, line 4, remove "driver" and insert —motor— therefor.

✓ Please cancel claim 14 in favor of claim 30.

✓ In claim 15, line 1, remove "14" and insert —30— therefor.

✓ In claim 17, line 7, after "amount" insert —to a second position—.

23.(amended) A method of releasing balls or plugs for liner cementing, comprising:

erecting an apparatus to drop balls or plugs on a casing or liner string;  
transmitting a signal over the air from a safe location to [the remotely mounted] said apparatus;

receiving said over-the-air signal at the apparatus;

providing a power supply in said apparatus;

using the signal received to trigger release of at least one ball or plug;

using a sleeve to selectively support a ball or plug;

using a [driver] powered motor coupled to a transmission to selectively retain said sleeve;

using said received signal to [actuate said driver] provide power from said power supply to turn said motor and said transmission;

releasing said sleeve due to [operation] rotation of said [driver] motor and said transmission;

removing support for said ball or plug by movement of said sleeve.

✓ Please cancel claim 25 in favor of claim 31.

In claim 26, line, remove "25" and insert —31— therefor.

✓ Please cancel claim 27 in favor of claim 32.

✓ Please add claims 28–32.

3. 28. A control apparatus for a single or multiple plug-dropping tool,  
comprising:

at least one signal transmitter for sending at least one signal over the  
air;

at least one signal receiver on a body for receiving said signal from said  
transmitter and to provide an output;

at least one control system comprising a primary control element;

at least one signal processor to use said output from said receiver to  
selectively remotely operate said primary control element to allow release of a plug  
from the apparatus by said system;

24 at least one final control element, said final control element selectively  
preventing and allowing a plug to drop from the apparatus, whereupon actuation of  
said primary control element selectively permits actuation of said final control  
element to drop a plug;

said primary control element further comprising:

a driver;

a transmission operably engaged to said final control element to  
selectively move said final control element so that said plug can be retained or  
released;

said control system operates off a power source mounted in said body;

said driver is mounted in said body and powered by said power source;

and

said driver is enclosed in a sealed chamber in said body which is  
pressurized by an inert fluid.

5 29. A control apparatus for a single or multiple plug-dropping tool, comprising:

at least one signal transmitter for sending at least one signal over the air;

at least one signal receiver on a body for receiving said signal from said transmitter and to provide an output;

at least one control system comprising a primary control element;

at least one signal processor to use said output from said receiver to selectively remotely operate said primary control element to allow release of a plug from the apparatus by said system;

24. at least one final control element, said final control element selectively preventing and allowing a plug to drop from the apparatus, whereupon actuation of said primary control element selectively permits actuation of said final control element to drop a plug;

said primary control element further comprising:

a driver;

a transmission operably engaged to said final control element to selectively move said final control element so that said plug can be retained or released; and

a clutch in said transmission to selectively disengage from said final control element.

19 30. A plug-dropping apparatus for displacement of a material downhole during well drilling and completion operations by personnel working on a rig, comprising:

at least one housing;

at least one plug selectively supportable within said housing;  
at least one plug stop assembly on said housing selectively operable  
to hold and release said plug;  
at least one signal transmitter operable adjacent the rig and remotely  
from said housing;  
at least one signal receiver on said housing for receiving over the air at  
least one signal from said transmitter;  
at least one control system positioned at least in part in said housing,  
said control system receiving an output from said signal receiver and in response  
thereto actuating said plug stop to release said plug;  
said control system further comprising:  
a driver;  
a transmission operably engaged to said driver and said plug stop  
assembly to selectively allow said plug stop assembly to move so that said plug can  
be retained or released;  
said control system operates off a power source mounted in said  
housing;  
said driver is mounted in said <sup>housing</sup> ~~body~~ and powered by said power source;  
and  
said driver is enclosed in a sealed chamber in said <sup>housing</sup> ~~body~~ which is  
pressurized by an inert fluid.

31.

A method of releasing balls or plugs for liner cementing, comprising:  
erecting an apparatus to drop balls or plugs on a casing or liner string;  
transmitting a signal over the air from a safe location to said apparatus;  
receiving said over-the-air signal at the apparatus;

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cont.

using the signal received to trigger release of at least one ball or plug;  
using a sleeve to selectively support a ball or plug;  
using a driver coupled to a transmission to selectively retain said sleeve;  
using said received signal to actuate said driver;  
releasing said sleeve due to operation of said driver;  
removing support for said ball or plug by movement of said sleeve;  
providing a beveled pin driven by said transmission;  
rotating said pin from a first position where it supports said sleeve to a  
second position where, due to said bevel, said pin no longer supports said sleeve;  
providing a clutching feature in said transmission to allow selective  
disconnection from said driver; and  
using a tool to engage said pin with said driver disconnected to return  
it from said second to said first position.

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32.

A method of releasing balls or plugs for liner cementing, comprising:  
erecting an apparatus to drop balls or plugs on a casing or liner string;  
transmitting a signal over the air from a safe location to said apparatus;  
receiving said over-the-air signal at the apparatus;  
using the signal received to trigger release of at least one ball or plug;  
using a sleeve to selectively support a ball or plug;  
using a driver coupled to a transmission to selectively retain said sleeve;  
using said received signal to actuate said driver;  
releasing said sleeve due to operation of said driver;  
removing support for said ball or plug by movement of said sleeve; and  
housing said driver in an enclosure pressurized with an inert fluid.